Abstract of the Disclosure

A geo-location technique for use in mobile communications networks employs both FDD and Time Division Duplex (TDD) modes of operation, and is applicable when both FDD and TDD systems are jointly deployed or both FDD and TDD modes of a wireless system such as UMTS are jointly activated. It has been determined that the near-far interference can be much easier controlled on purpose in the TDD mode than in the FDD mode thanks to the slotted data transmission nature of a TDD system that permits adjustment of the interference level at the time slot level instead of the frame level. Indeed, in a TDD system, loading and interference levels can be gracefully decreased in a single time slot without harming the ongoing traffic or complicating the power control operations, as would be the situation in a UMTS FDD system via IPDL or similar solutions that require to mute the pilot transmission. The invention applies to both situations whether or not the terminals are equipped with a dual receiver. This is realized by detecting the level of interference in the FDD system and comparing it with a first threshold. If the interference level is greater than the first threshold, operation is switched to the TDD system to perform the geo-location process. Otherwise, the geo-location process is performed in the FDD system. However, when in the FDD system, if the accuracy of the geo-location measurement is not determined to be satisfactory because, e.g., an insufficient number of pilot signals can be measured in a predetermined time interval, the operation is also switched to the TDD system to perform the geo-location process. Then, when in the TDD system, a time slot is selected that has low interference for the purpose of signal measurements. Once the time slot is selected the interference level is reduced by employing a prescribed technique until the interference level is less than a second threshold. Thereafter, the geo-location process is effected in the TDD system.